



Stantec

Stantec Consulting Services Inc.
100 Pearl Street 11th Floor
Hartford CT 06103
Tel: (860) 948-1628
Fax: (860) 948-1629

June 4, 2012

Kim Tisa (tisa.kimberly@epa.gov)
U.S. EPA New England
5 Post Office Square, Suite 100
Mail code: OSRR07-2
Boston, MA 02109-3912

Subject: **Limited Removal Action Authorization Request
78-98 Rebesch Drive
North Haven, Connecticut
CT DEEP REM ID # 4624**

Dear Ms. Tisa:

Stantec Consulting Services Inc. ("Stantec") is pleased to submit this request to the United States Environmental Protection Agency, Region 1 (EPA) on behalf of WEI North Haven Limited Partnership. The request is being submitted to obtain authorization to initiate a limited removal action of soils containing polychlorinated biphenyls (PCBs) in excess of 10 parts per million (ppm) at 78-98 Rebesch Drive in North Haven, Connecticut ("the Site"). Stantec would like to perform the work during the month of July 2012 to enable site work and paving to occur during the summer months. The attached Figure 1 depicts the site location. Figures 2 and 3 illustrate the portions of the Site where the proposed limited removal action approval is requested.

The Connecticut Department of Energy and Environmental Protection (DEEP) has requested additional sampling of soils from 0 to 4 feet below grade (fbg) during excavation to supplement existing site characterization data. We understand that DEEP and EPA cannot approve the Remedial Action Plan until that supplemental sampling has been conducted. As a result, EPA requested that Stantec submit a letter request to conduct a limited removal action to facilitate data collection and removal of PCBs above 10 ppm in accessible portions of the Site. This letter serves to fulfill that request, and provides a summary of the project, the proposed limited removal action, and other elements of the project. As required by 40 CFR Part 761.6(a)(3)(i)(E), certifications from the responsible party, property owner, Stantec, the laboratory, and contractor are also attached.

BACKGROUND

Historically, the Site was used as a brick manufacturing plant. Surficial clay deposits on the Site and surrounding properties were excavated for making bricks from the 1930s to late 1950s. The clay mining activity created ponds, which were the result of excavation below the natural groundwater table. In the 1960s and early 1970s, the ponds were filled with materials obtained from an unknown source.

Environmental investigation activities have been conducted since 1998, and resulted in the identification of releases of petroleum, poly-aromatic hydrocarbons (PAHs), and PCBs in soils. Most of the materials exist below the seasonal high groundwater table.

Stantec developed a Conceptual Site Model (CSM), which was based on historical research, analytical data obtained during investigation activities, and site observations. Since wood pulp and wood scrap wastes were observed and co-mingled with petroleum, PAH, and PCBs detected in site soils, the likely source of the fill was associated with wood preservative wastes. Wood preservatives often contained these materials. Wood preservation was an industry historically conducted in North Haven, and wastes may have been transported to and used on-site as fill.

As discussed, contaminants are largely absent in soils examined from 0 to 4 feet. The CSM indicates that the contaminants detected in soils were obtained from an off-site source(s). In addition, the CSM suggests that uncontaminated surficial soils may have been deposited in the 1980s in preparation for the existing site development.

Based on soil observations and field screening, which suggested that surficial soils are not contaminated, little soil sampling was conducted from 0-4 fbg. No information was found to suggest that soil from 0-4 fbg contains contaminants. The impacted soil extends mostly from the seasonal high groundwater table (located at 5-6 fbg) to approximately 15-16 fbg in several fill areas. Very little impacted soil appears to exist in soils above the seasonal high groundwater table.

PCBs at concentrations over the Industrial/Commercial Direct Exposure Criteria (IC DEC) of 10 ppm were observed in only two exterior areas on the Site: south of 78 Rebesch Drive and north of 98 Rebesch Drive. PCBs over 10 ppm also extend beneath the northern side of 98 Rebesch Drive, but are inaccessible beneath the building. PCBs are comingled in places with a larger volume of PAHs and petroleum impacted soil, some of which exceeds the IC DEC of 2,500 ppm and the IC DEC for several PAHs.

Groundwater sampling results do not suggest that PAHs, extractable total petroleum hydrocarbons (ETPH), or PCBs are present in groundwater in or downgradient of the release areas. Trace concentration of PAHs were detected in only one monitoring well sampled in 2011, leading to the conclusion that PAHs detected in this well were associated with sediment and not groundwater.

Indoor air sampling conducted within the buildings in 2011 did not identify PCBs in indoor air above ambient air concentrations outdoors.

PROPOSED REMEDIATION STRATEGY

As discussed with EPA and DEEP in meetings from 2010 to the present, Stantec proposes to remove soil containing PCBs at concentrations over the IC DEC of 10 ppm in all accessible areas of the Site (ie within the surface 15 feet), with the exception of soil beneath the 98 Rebesch Drive

building. Beneath the building, soils containing PCBs over 10 ppm will remain in place by using two mechanisms:

- 1) EPA approval under their risk-based approval process (40 CFR Part 761 (c)), which will allow PCBs in soil to remain in place at concentrations not to exceed 700 ppm beneath the 98 Rebesch Drive building (which is deemed "low-occupancy"), and
- 2) DEEP Commissioner approval of this alternate criterion for PCBs present under the low-occupancy 98 Rebesch Drive building in accordance with §22a-133k-2(d)(7).

An ELUR prohibiting the development of the Site as residential will address soils containing PCBs (as well as PAHs and ETPH) over their respective RDEC.

For PAHs and ETPH at concentrations in excess of the IC DEC, Stantec proposes to render soils containing ETPH and PAHs above the IC DEC inaccessible under a site-wide Environmental Land Use Restriction (ELUR). The ELUR would address both soils impacted in excess of the IC DEC in soils deeper than 4 feet throughout exterior areas of the Site, as well as soils present beneath the 98 Rebesch Drive building concrete slab.

After soil excavation to remove PCBs over 10 ppm in accessible areas (i.e. beneath paved parking lots), the two remediation areas will be re-paved with 3-inches of hot rolled asphalt.

Since the impacted soil is at depth, under an existing building, not impacting groundwater, and no receptors have been identified, we feel that this approach is protective of human health and the environment.

Soil Removal

As described above, soil containing PCBs over 10 ppm will be excavated and disposed off-site. These soils exist beneath the parking lot south of 78 Rebesch Drive, and in the parking lot north of 98 Rebesch Drive. These have been designated as Zones 1 and 3 on Figure 2 and 3, respectively. To excavate the impacted soil, excavation into the saturated groundwater zone will be required. To accomplish this, shoring will be required to stabilize excavation sidewalls. Similarly, dewatering will be required to remove water that enters the excavation. A discussion of soil staging, PCB impacted soil storage, backfill criteria, and dewatering is presented below.

Verification Sampling

After the limits of impacted soil are excavated, Stantec will collect verification sampling in accordance with Subpart O - *Sampling to Verify Completion of Self-Implementing Cleanup and On-Site Disposal of Bulk PCB Remediation Waste and Porous Surfaces in Accordance with 40 CFR §761.61(a)(6)*. Soil samples will be analyzed for PCBs using the Soxhlet

extraction procedure by Alpha Analytical, Inc. in Westborough, Massachusetts (Alpha) on an expedited turn around basis. A TSCA certification from Alpha to EPA is attached.

On-site Soil Transport and Staging

Soil will be removed from each excavation and loaded into a leak-proof container for transport to a soil staging and stockpile area. Stantec proposes to use the paved turn around at the property-owned terminus of Rebesch Drive for waste staging and storage. Soil will be transferred from the container to a soil stockpile area that is designed to meet the requirements for PCB soil stockpile storage as specified in 40 CFR §761, Subpart D, Storage and Disposal. We anticipate that the total volume of material that will be excavated will not exceed 1,000 cubic yards (yds³). The stockpile will be covered by polyethylene sheeting and inspected daily to ensure that wastes stored in the stockpile remain covered. Free draining liquids will be pumped into a nearby storage tank and subsequently scheduled for off-site disposal.

During soil transport on-site, visible debris and dust will be removed from transport vehicles between excavation areas and soil stockpile areas using anti-tracking pads and wash down areas. Equipment such as excavators, trucks, shoring structures, and hand tools that are used to facilitate excavation, dewatering, soil transport, and site management will be decontaminated before being moved from excavation areas to prevent tracking. Dust suppression and misting will also be used as necessary to prevent dust migration from excavation areas. Any wastes accumulated from wash down areas will be added to the liquid storage tank and solid wastes to the accumulated soil piles, respectively. Handling and disposal of those wastes is described below (Dewatering and Soil Disposal).

Anti-Tracking Measures

As discussed in other portions of this request, the contractor will take precautions to eliminate the potential for tracking PCB-impacted soils beyond the work area. Specific anti-tracking measures include dusting and misting the work area if visible dust emissions are observed, the use of decon pads, wash down areas for all vehicles and equipment that leave work areas, and the use of coveralls and disposable boots in the work areas. Waste materials from anti-tracking measures will be handled appropriately (described below in Dewatering and Soil Disposal).

Ambient Air Monitoring

To prevent the potential for PCB migration in ambient air and provide documentation that the project has not resulted in the release of PCBs to the environment, Stantec will employ ambient air monitoring devices at the perimeter of the work areas (e.g. Dustrak). Stantec will use 150 ppm total particulate above background as an action level for dust mitigation. We have found that 150 ppm is sufficient to protect human health and the environment from PCB releases on similar projects.

Dewatering

Wastewater that is removed from excavation areas and/or used for decontamination purposes will be containerized in a pump truck and transported to a 20,000-gallon Baker tank that will be staged in the property-owned paved terminus of Rebesch Drive (on-site). Wastewater will be sampled and disposed off-site at a water treatment facility as PCB remediation waste, if necessary.

Soil Disposal

Soil removed from each excavation will be disposed as PCB remediation waste at a Subtitle C landfill. We anticipate that the waste will be shipped to the Model City or Turnkey landfills after profiling and acceptance as TSCA waste.

Site Security

During soil excavation activities, each remediation area will be secured with locked temporary chain link fencing to exclude the areas from public access. Soil staging and the Baker tank storage areas will also be fenced and marked with the "M_L" mark to designate these areas as PCB waste storage areas.

Should excavations fill with water and result in an unstable excavation (despite the presence of shoring), the contractor will be directed to backfill the excavation areas with 2-inch minus gravel to bridge saturated groundwater. After the receipt of verification sampling results, the excavations will be backfilled to the surface with suitable fill and compacted to at least 85 percent compaction as measured by a third party materials testing laboratory.

Backfill Quality

Fill materials used to backfill excavations will be sand and gravel that meets Connecticut Department of Transportation (DOT) requirements for paving sub-base conforming to the requirements of Articles M.02.02 and M.02.06 of the Connecticut DOT specifications for grading materials B.

Asphalt

Prior to repaving, soils will be compacted to a minimum of 85 percent compaction to prevent settling, and maximize pavement life. Each area will be repaved with a minimum of three inches of hot rolled asphalt (finished thickness measured after compaction) that is graded to match the existing asphalt surface.

ADDITIONAL SOIL SAMPLING (FOR TRANSFER ACT SITE CHARACTERIZATION)

During excavation, Stantec will collect approximately 20 soil samples from the perimeter of the excavation areas from 0-4 fbg. The soils will be analyzed for PCBs, PAHs, and ETPH to bolster the existing Site characterization data. The data will enable Stantec to characterize

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PCB, PAH, and ETPH concentrations in soils from 0-4 fbg, thereby providing the option to use the 95-percent Upper Confidence Limit (UCL) to determine compliance with regulatory criteria.

CONCLUSIONS

Stantec would greatly appreciate your review and approval of this Limited Removal Action Approval Request. Please call me at (860) 948-1628 x 7113 should you have any questions or comments.

Sincerely,



John H. Insall, LEP
Stantec Consulting Services Inc.

Attachments: Figure 1
Figure 2
Figure 3
Stantec Certification
Property Owner Certification (Andrew Dixon)
Responsible Party Certification (WEI North Haven Limited Partnership)
Laboratory Certification (Alpha Analytical, Inc.)
Contractor Certification (AES Remedial Contracting, Inc.)

cc: Adam D. Winstanley (WEI North Haven Limited Partnership)(Certifying Party)
Andrew Dixon (Property Owner)
Gary Trombly (CT DEEP)
Tom RisCassi (CT DEEP)